The world's most consistent and transparent Life Cycle Inventory database

guided tour to ecoinvent functionalities

Presentation

24 September 2018

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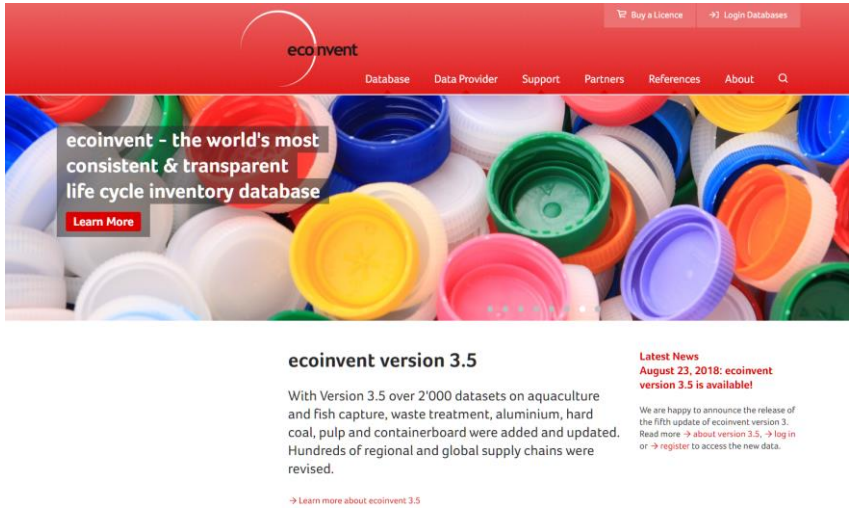
Data Analyst

ecoinvent

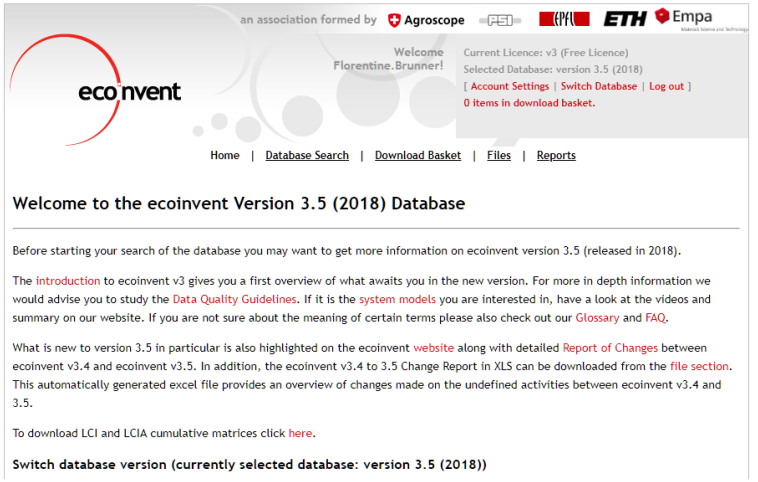
Content of this presentation

Guided tour to ecoinvent functionalities

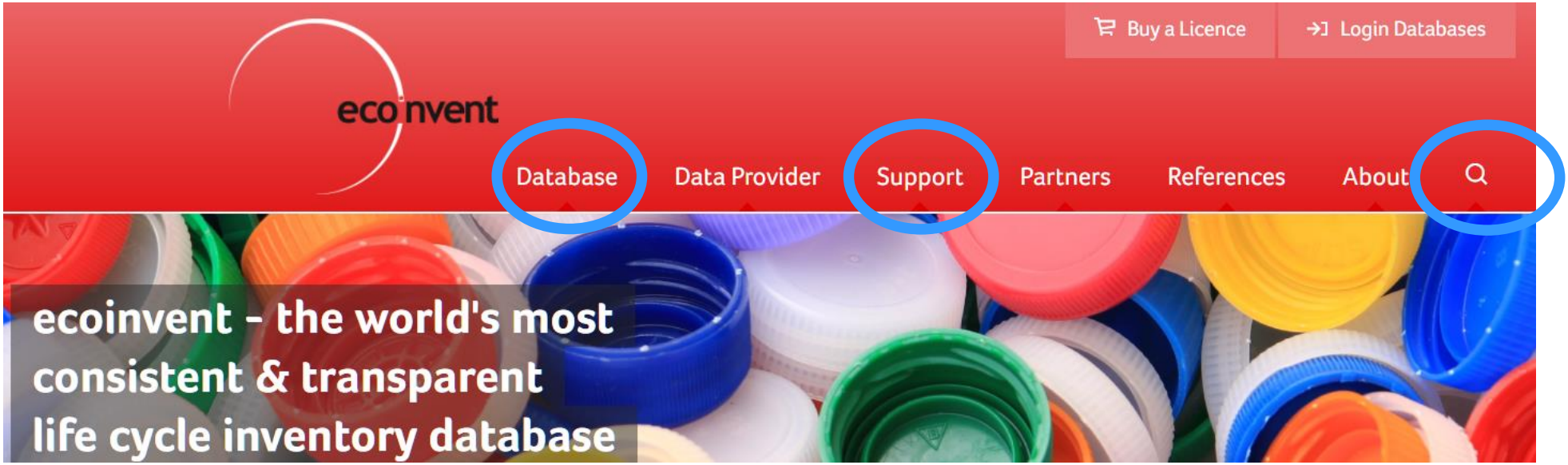
- **Webpage**: serach & use of the materials provided



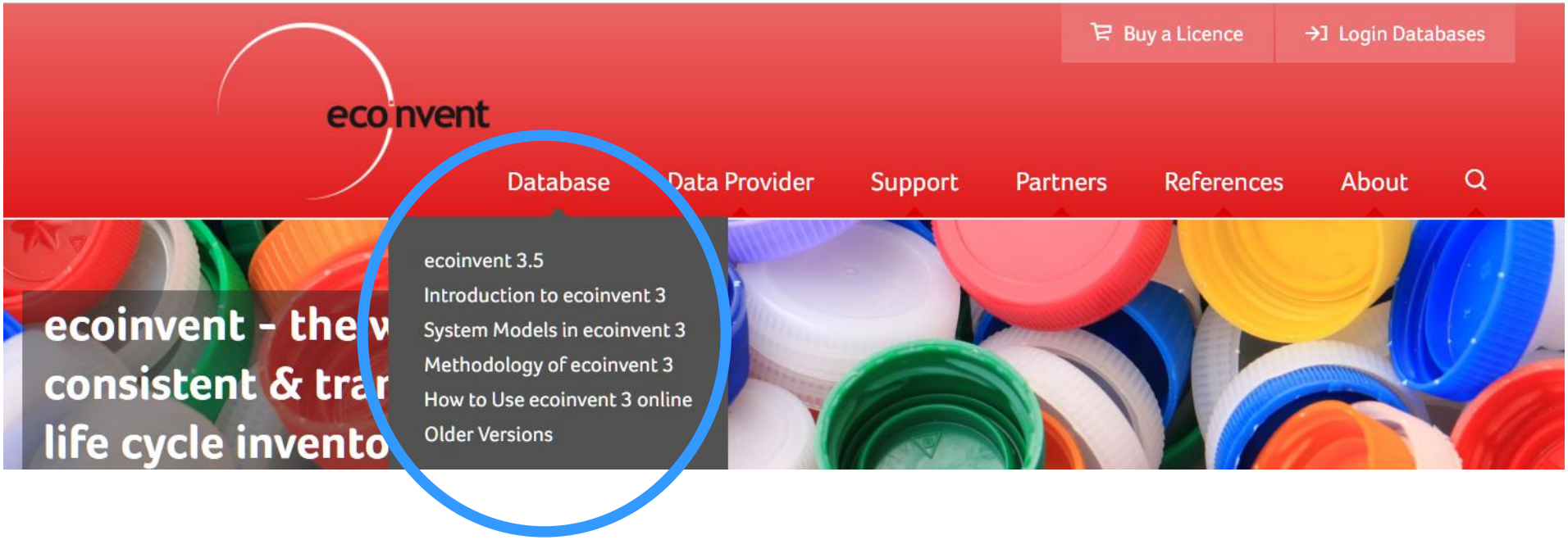
- **ecoQuery:** funcitonalities and navigation



Enhance the use of our webpage!



‘Database’ section



- ‘Database’ section: to find out about v3, the latest and all previous releases, the methodology and the system models
- ‘Support’ section
- ‘Search’ function

‘Database’ section

→ All relevant files for ecoinvent 3.5

New Data and Features

The fifth update of ecoinvent version 3 includes over two thousand new and updated datasets related to aquaculture and fish capture, waste treatment, hard coal and aluminium supply, pulp and containerboard production. Moreover, the overall representation of supply chains was improved.

→ New Data & Features in ecoinvent 3.5

Report of Changes

- PDF Change Report
- Correspondence File
- XLS Change Report Annex

→ Report of Changes | ecoinvent 3.5

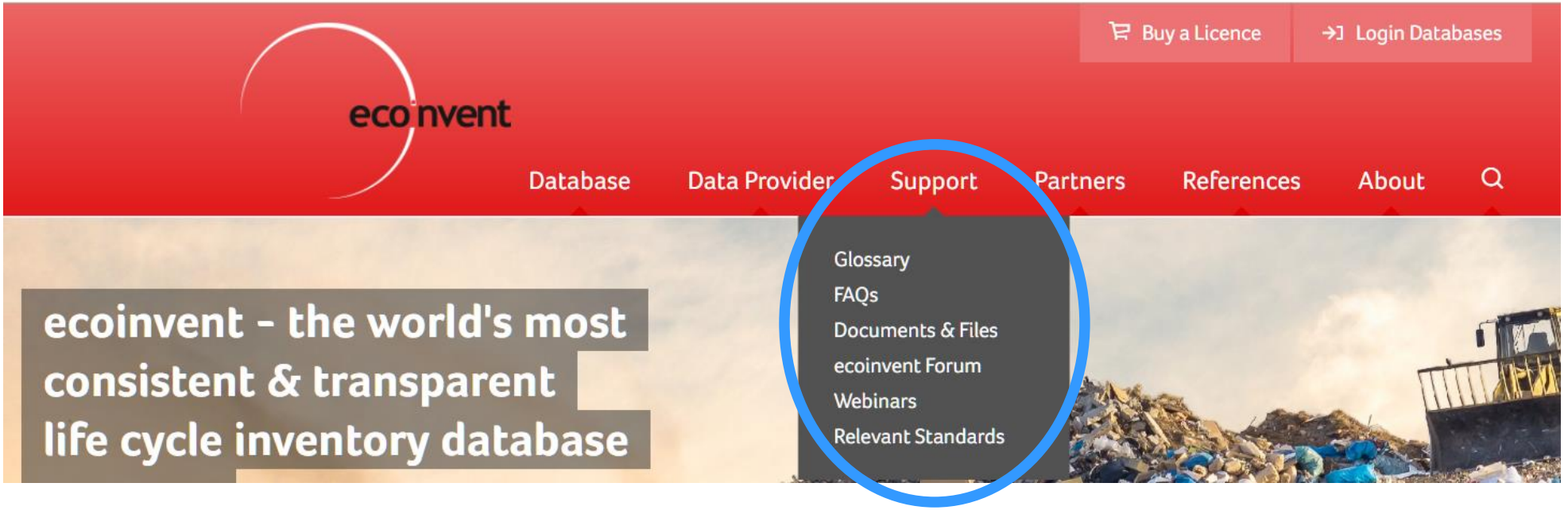
Known Issues

This section lists all known data errors in ecoinvent version 3.5. We are working hard on eliminating these for upcoming update to the database.

We document these issues openly to warn our users about these problems and to help them understand the errors so they may work around them while we work on the update and error fix.

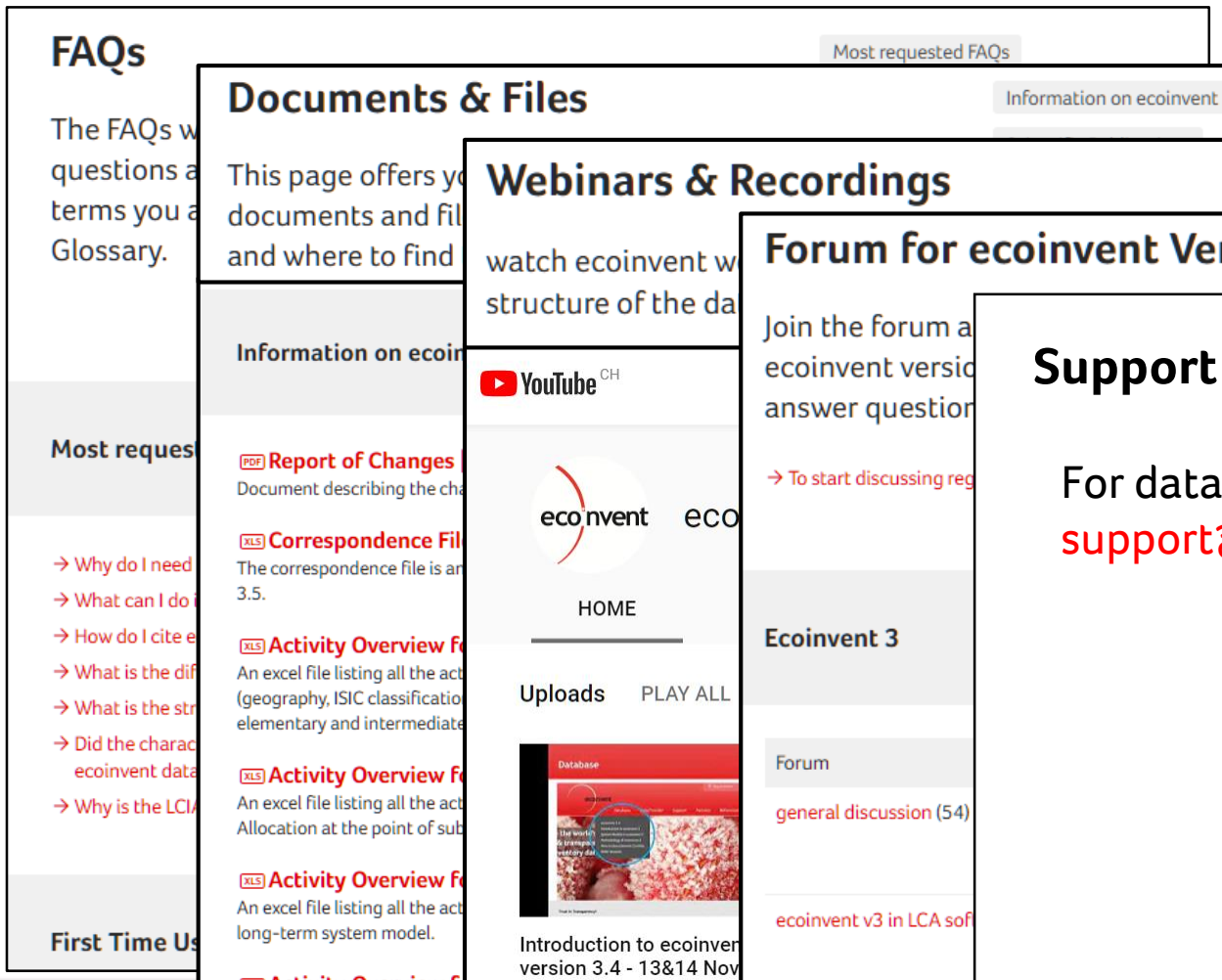
→ Known Data Issues | ecoinvent 3.5

‘Support’ section



- ‘Database’ section
- ‘Support’ section: get your questions answered effectively
- ‘Search’ function

Support


FAQs
Most requested FAQs
Documents & Files
Information on ecoinvent 3
Webinars & Recordings
Glossary
Forum for ecoinvent Version 3
Registration
Support Mail
For data related, technical questions:
support@ecoinvent.org
Information on ecoi
Most reques
Report of Changes
Correspondence Fil
Activity Overview f
First Time Us
YouTube CH
HOME
Uploads
PLAY ALL
Introduction to ecoinven
version 3.4 - 13&14 Nov
580 views • 9 months ago
Ecoinvent 3
Forum
general discussion (54)
ecoinvent v3 in LCA sof
LCIA (26)
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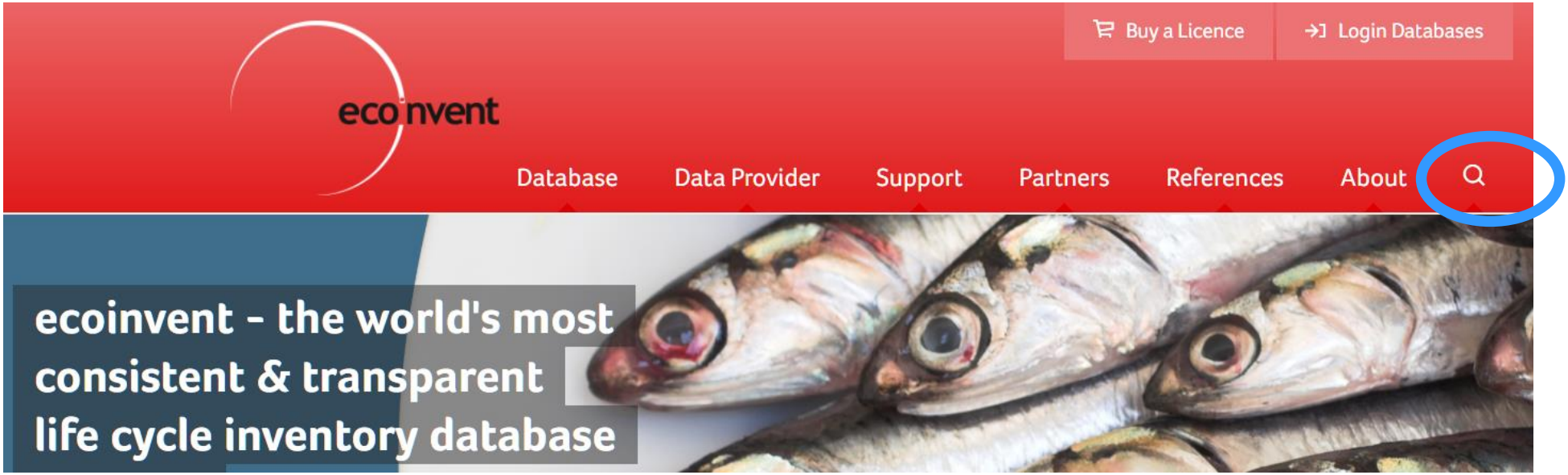
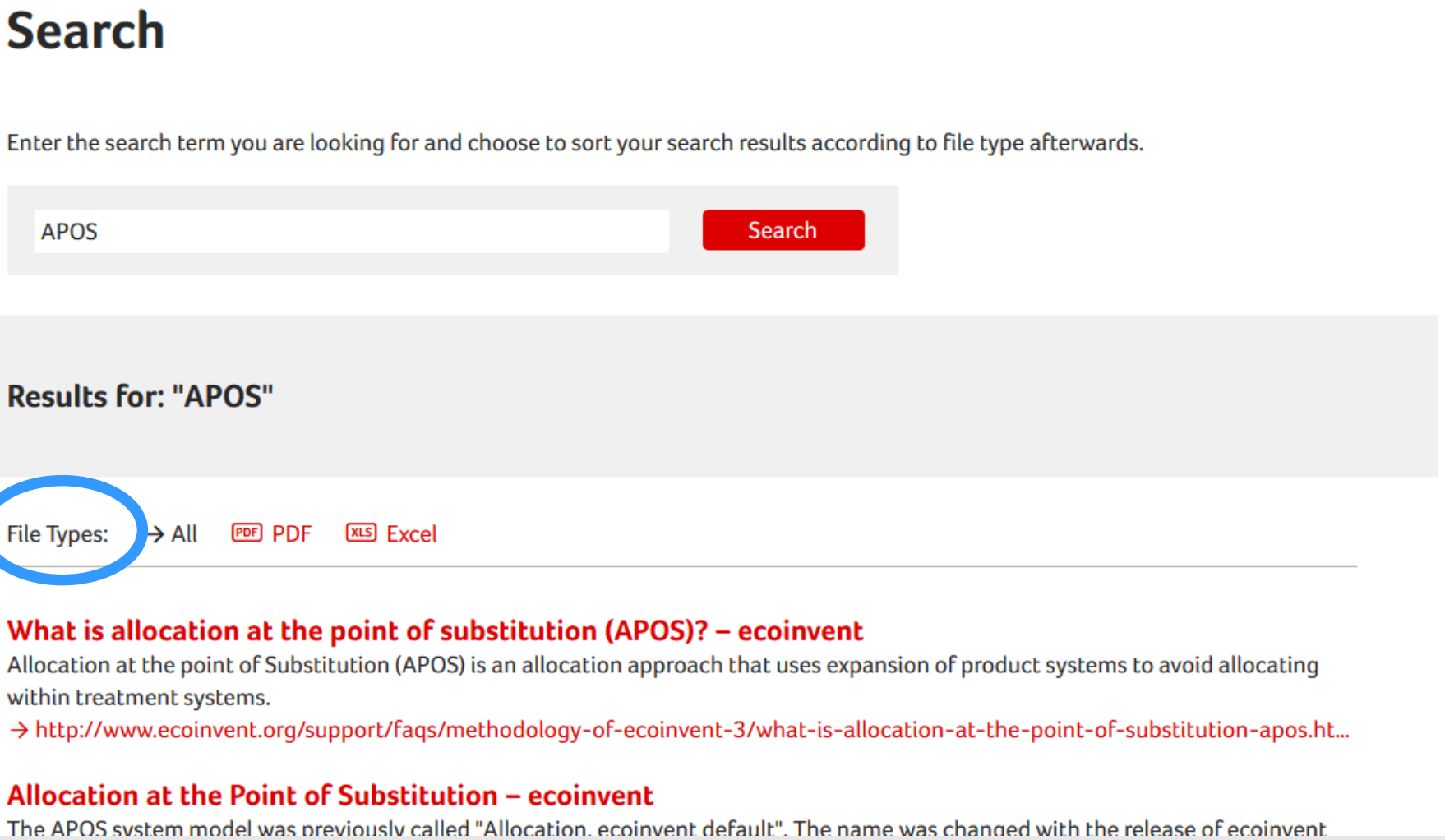


- 'Database' section
- 'Support' section
- 'Search' function: to find what you need

Search


Search
Enter the search term you are looking for and choose to sort your search results according to file type afterwards.
APOS
Search
Results for: "APOS"
File Types:
All
PDF
Excel
What is allocation at the point of substitution (APOS)? – ecoinvent
Allocation at the point of Substitution (APOS) is an allocation approach that uses expansion of product systems to avoid allocating within treatment systems.
→ http://www.ecoinvent.org/support/faqs/methodology-of-ecoinvent-3/what-is-allocation-at-the-point-of-substitution-apos.ht...
Allocation at the Point of Substitution – ecoinvent
The APOS system model was previously called "Allocation, ecoinvent default". The name was changed with the release of ecoinvent

Content of this presentation

Guided tour to ecoinvent functionalities

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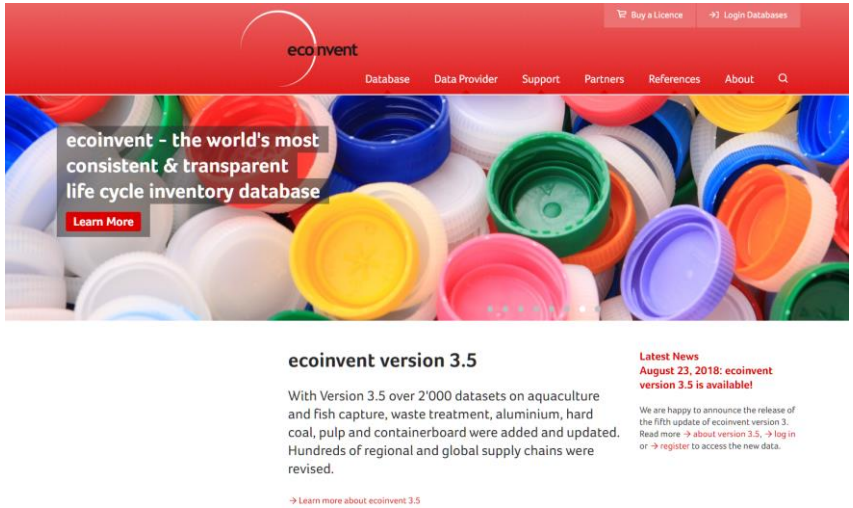

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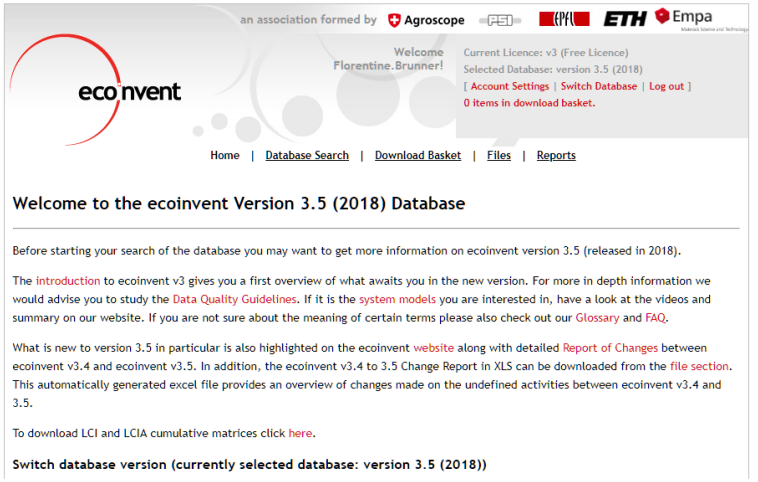
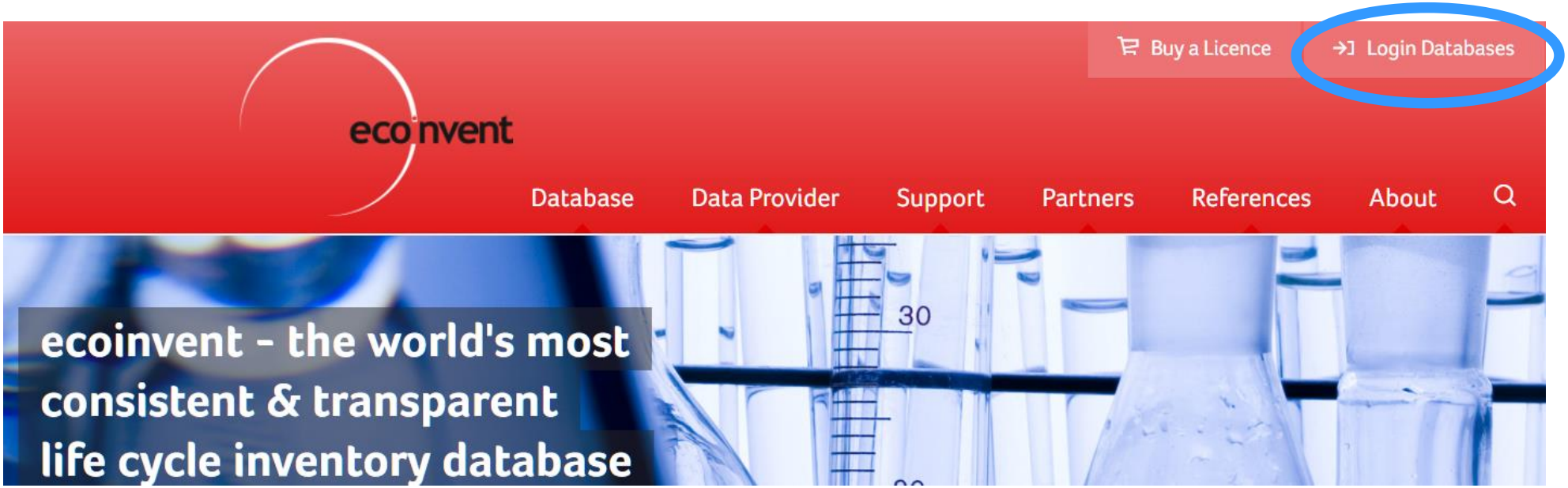
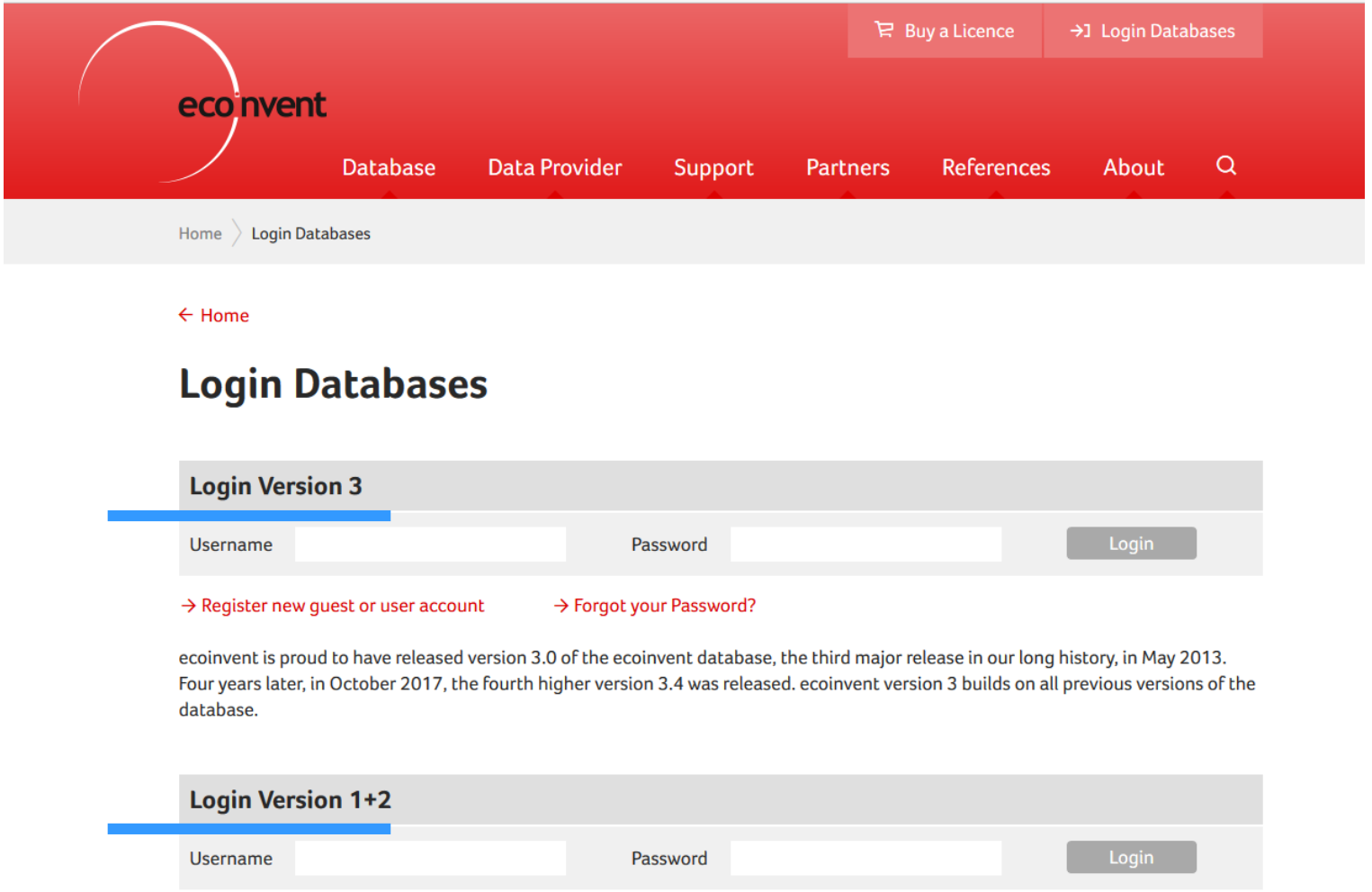


Enter the ecoQuery

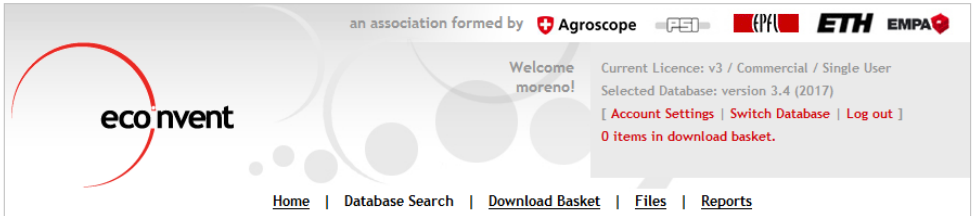


- Why?
  - LCA software tools do not always support all available information
  - Datasets: exchange properties, comments, formulas
  - Reports: specific to sectorial data, tools etc.

Log in to v3 or to older versions



Use the simple search



Search in Activity Name, Reference Product Names and Synonyms

System Model

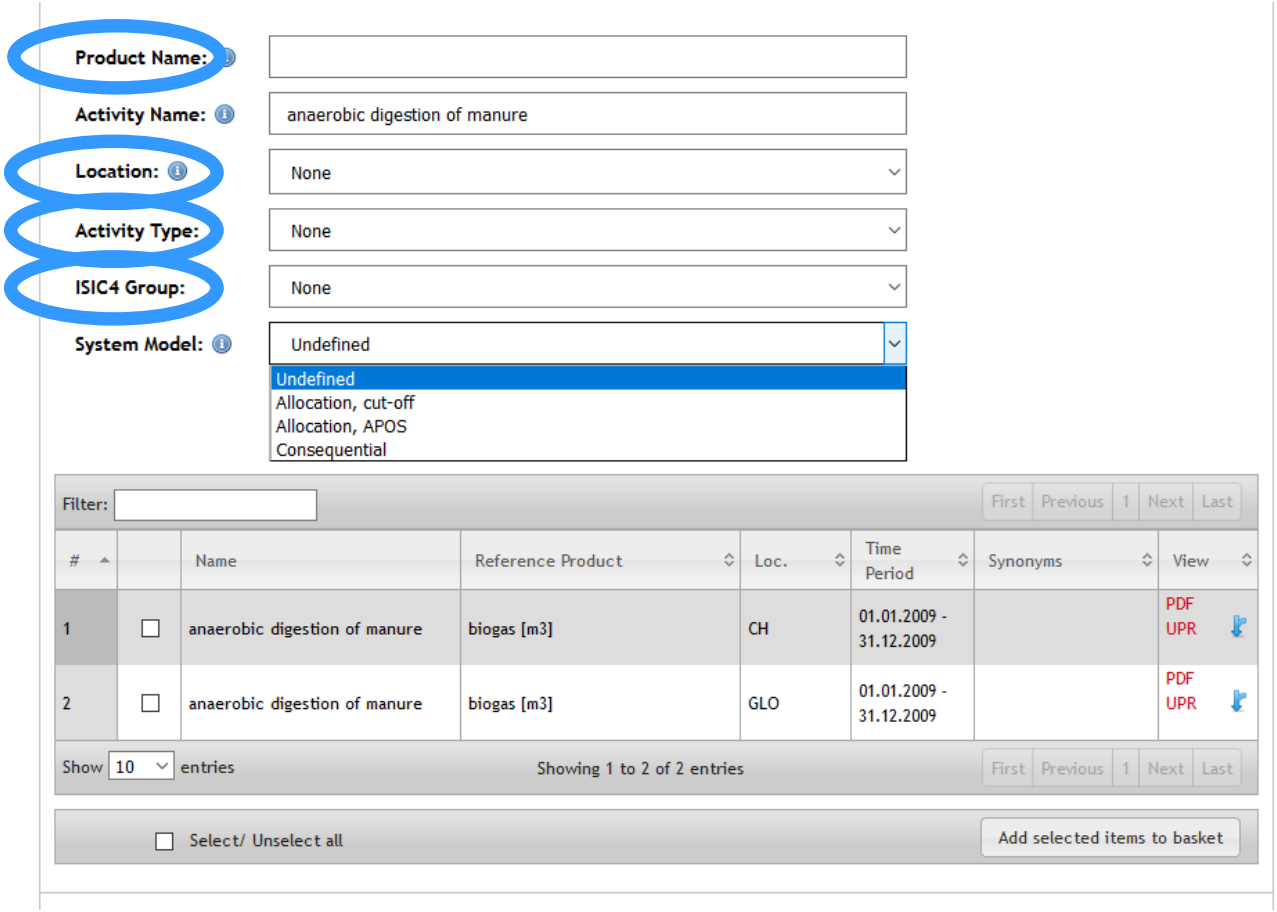
- (•) **Undefined**

  These are the unlinked, multi-product activity datasets that form the basis for all the other system models. This is the way the datasets are obtained and entered by the data providers. These activity datasets are useful for investigating the environmental impacts of a specific activity (gate-to-gate), without regard to its upstream or downstream impacts.

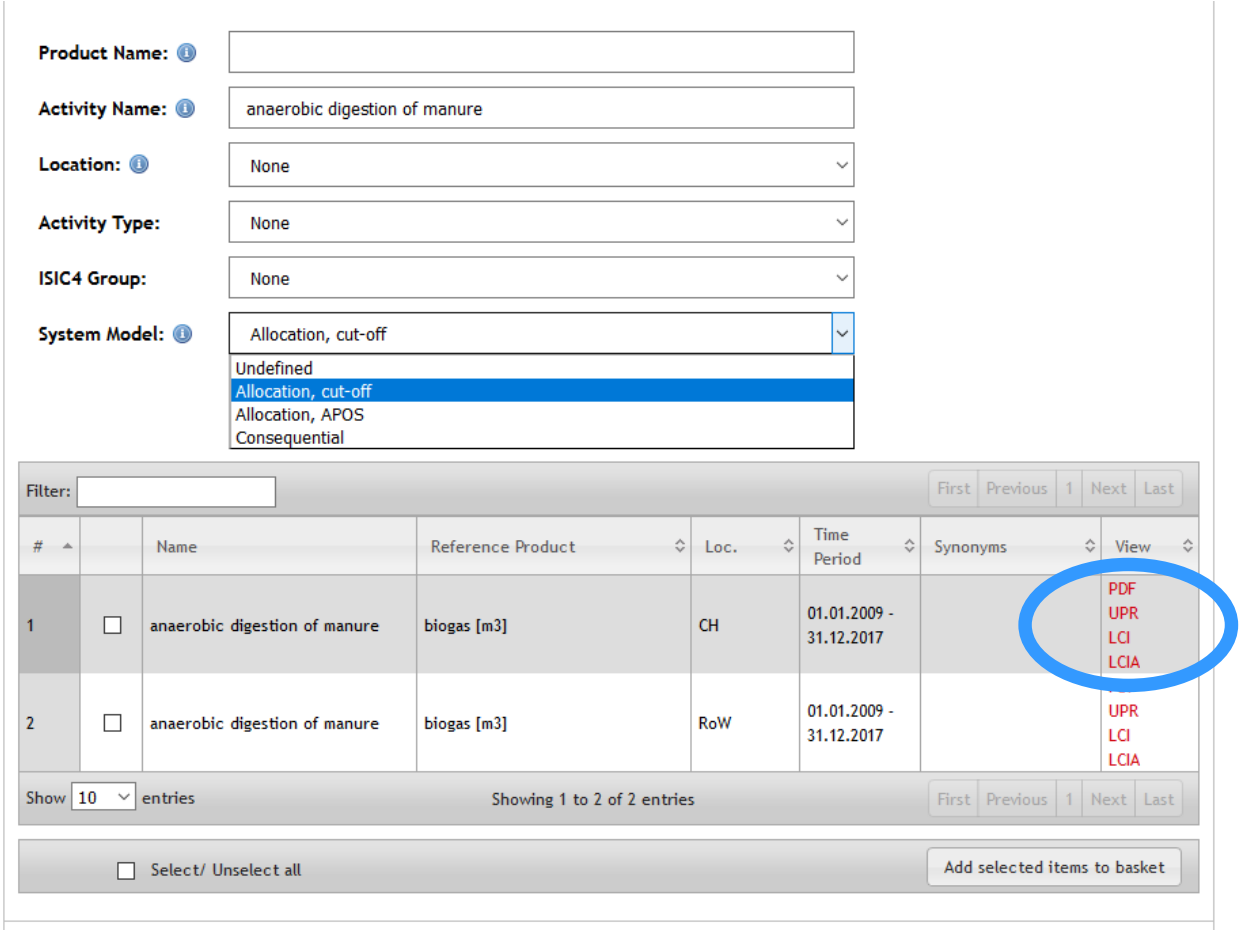
- ( ) **Allocation, cut-off by classification**
- ( ) **Allocation at the point of substitution**
- ( ) **Substitution, consequential, long-term**

Switch to Advanced Search

Use the Advanced Search



Datasets in your browser or as PDF reports



- system models: access to the linked Unit Processes, LCI and LCIA.
- PDF reports

Dataset PDF reports

Ecoinvent 3.5 dataset documentation

corrugated board box production - RER

Dataset identification

Activity name	corrugated board box production
geography	RER (Europe)
Time period	2009-01-01 to 2015-12-31 Valid for the entire period
Synonym	None
ISIC rev.4 ecoinvent	1702: Manufacture of corrugated paper and paperboard and of containers of paper a
Reference product	corrugated board box
CPC classification	32153: Cartons, boxes, cases, record sleeves and other packing containers (except bags) of paper, paperboard, cellulo[…]
Dataset type	Ordinary transforming activity
Technology level	Current
Version - system model	3.5 - Undefined

Table of content

Exchange summary
Dataset description
Detailed information
Sources

Notes: This document c
the information in the
about properties of e
relations, parameters, ar
authors and reviewers
dataset, e.g. through
Amount and identity o
undefined dataset are i
choices in by the differen
dataset are available in s

Link to the dataset on the

Dataset authorship

Role	Name, organisation
Data generator	Angeline de Beaufort, De Beaufort-Langeveld
Data entry	Angeline de Beaufort, De Beaufort-Langeveld
Review	Emilia Moreno Ruiz, ecoinvent Centre
Review	Caroline Gaudreault, National Council for Air & Stream Improvemer
Review	Tereza Levova, ecoinvent Centre

Exchange summary

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Reference products	Material for treatment	Byproduct classif.
corrugated board box	no	allocatable product
By-products	**Material for treatment**	**Byproduct classif.**
residual softwood, wet	no	allocatable product
sludge from pulp and paper production	yes	Waste
waste mineral oil	yes	Waste
waste paint	yes	Waste
waste paperboard, sorted	no	Recyclable
Inputs from technosphere		
acrylic varnish, without water, in 87.5% solution state		
borax, anhydrous, powder		
containerboard, fluting medium		
containerboard, linerboard		
diesel, low-sulfur		
electricity, medium voltage		
ethylene vinyl acetate copolymer		
heavy fuel oil		
light fuel oil		

Dataset description

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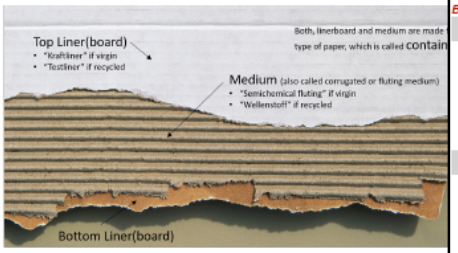
General comments



Corrugated Board is manufactured from several specially conditioned layers of recycled or
Fluting Medium being the middle layer and Linerboard used for the outside layers. Reels
Linerboard are fed into a machine which is called a Corrugator (FEFCO. 2015). In integrat
ones represented here, the finished board is further folded into boxes.

Included activities start

The process starts as reels of Fluting Medium and Linerboard are fed into a machine call
Fluting Medium paper is conditioned with heat and steam and fed between large corrugat
paper its fluted shape in the Single Facer. Starch is applied to the tips of the flutes on one s
is glued to the fluting. The corrugated fluting medium with liner attached to it is called single
along the machine towards the Double Backer where the single face web meets the
corrugated board. A number of layers of single faced web may be built up to produce
corrugated board. The corrugated board is slit into the required widths and cut into sheets w
or palletised.

Included activities ends

The final stage of the process consists of printing and then slotting, folding and gluing the
manufacture a corrugated box.

Sampling procedure

Data were collected from the producers by FEFCO and checked by technical experts. Th
board production are based on 224 integrated plants (i.e. corrugated board production and
same site) in Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germa
Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slova
Switzerland and the United Kingdom. Together they produce 9.400.000 tonnes net sales
which is 40% of the total annual production of corrugated board in Europe. Each of the proc
on average 42.300 tonnes of corrugated sheets, ranging from 25.000 - 500.000 tonne
FEFCO. 2015. European Database for Corrugated Board Life Cycle Stu
thanhttp://www.fefco.org/sites/default/files/lca-report-2015.pdflarger than, accessed 08.02.20

Extrapolations

Additional air emissions from the combustion of fossil fuels estimated based on industrial
the ecoinvent database and matched as follows:light fuel oil: heat production, light fuel oil
1MW, Europe without Switzerlandheavy fuel oil: heat production, heavy fuel oil, at industrial
without Switzerlandhard coal: heat production, at hard coal industrial furnace 1-10
Switzerlandnatural gas: heat production, natural gas, at industrial furnace larger than10
Switzerlandlignite briquettes and peat: heat production, lignite briquette, at stove 5-1
Switzerlandwood chips: heat production, wood chips from industry, at furnace 1000kW, CH.

Technology comments

Average of present used technology.

Detailed information for exchanges

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Reference product	Annual prod.vol.	Amount
corrugated board box	2.23e+10 kg	1.00e+3 kg

Production volume comment: Reported as total shipments of corrugated board in Europe in 2015 by FEFCO (2015). Reference(s): FEFCO. 2015. Annual Statistics 2015, accessible online at http://www.fefco.org/sites/default/files/documents/Fefco_AnnualEvaluation_2015.pdf, last accessed 08.02.2018
Source: FEFCO Corrugated Packaging 2015

By-products	Annual prod.vol.	Amount
residual softwood, wet	2.70e+3 m3	0.000121 m3

Comment: Reported as for residues/bark, wood. Assumed all softwood, which represents 85% of wood input (by weight). Density based on assummed water content on a dry mass basis of 70%.
Production volume comment: Calculated from production volume of reference flow.
Uncertainty distribution: lognormal; **GSD2:** 1.11; **Pedigree matrix:** [3, 3, 1, 1, 3]
Uncertainty comment: Uncertainty accounts for both the uncertainty associated with the waste mass value reported by FEFCO and the density value used to convert the exchange value to a volume basis.
Source: FEFCO Corrugated Packaging 2015

sludge from pulp and paper production	1.06e+7 kg	0.476 kg

Comment: Reported as residue, inorganic sludges (0kg) and organic sludges (0.48 kg).
Production volume comment: Calculated from production volume of reference product using the relative outputs.
Uncertainty distribution: lognormal; **GSD2:** 1.04; **Pedigree matrix:** [1, 3, 1, 1, 1]
Uncertainty comment:
Source: FEFCO Corrugated Packaging 2015

waste mineral oil	6.04e+5 kg	0.0271 kg

Comment: Reported as "Residues, Lubricants and oil".
Production volume comment: Calculated from production volume of reference product using the relative outputs.
Uncertainty distribution: lognormal; **GSD2:** 1.04; **Pedigree matrix:** [1, 3, 1, 1, 1]
Uncertainty comment:
Source: FEFCO Corrugated Packaging 2015

waste paint	1.02e+7 kg	0.46 kg

Comment: Proxy for "Ink residues".
Production volume comment: Calculated from production volume of reference product using the relative outputs.
Uncertainty distribution: lognormal; **GSD2:** 1.04; **Pedigree matrix:** [1, 3, 1, 1, 1]
Uncertainty comment:

waste paperboard, sorted	2.23e+9 kg	100 kg

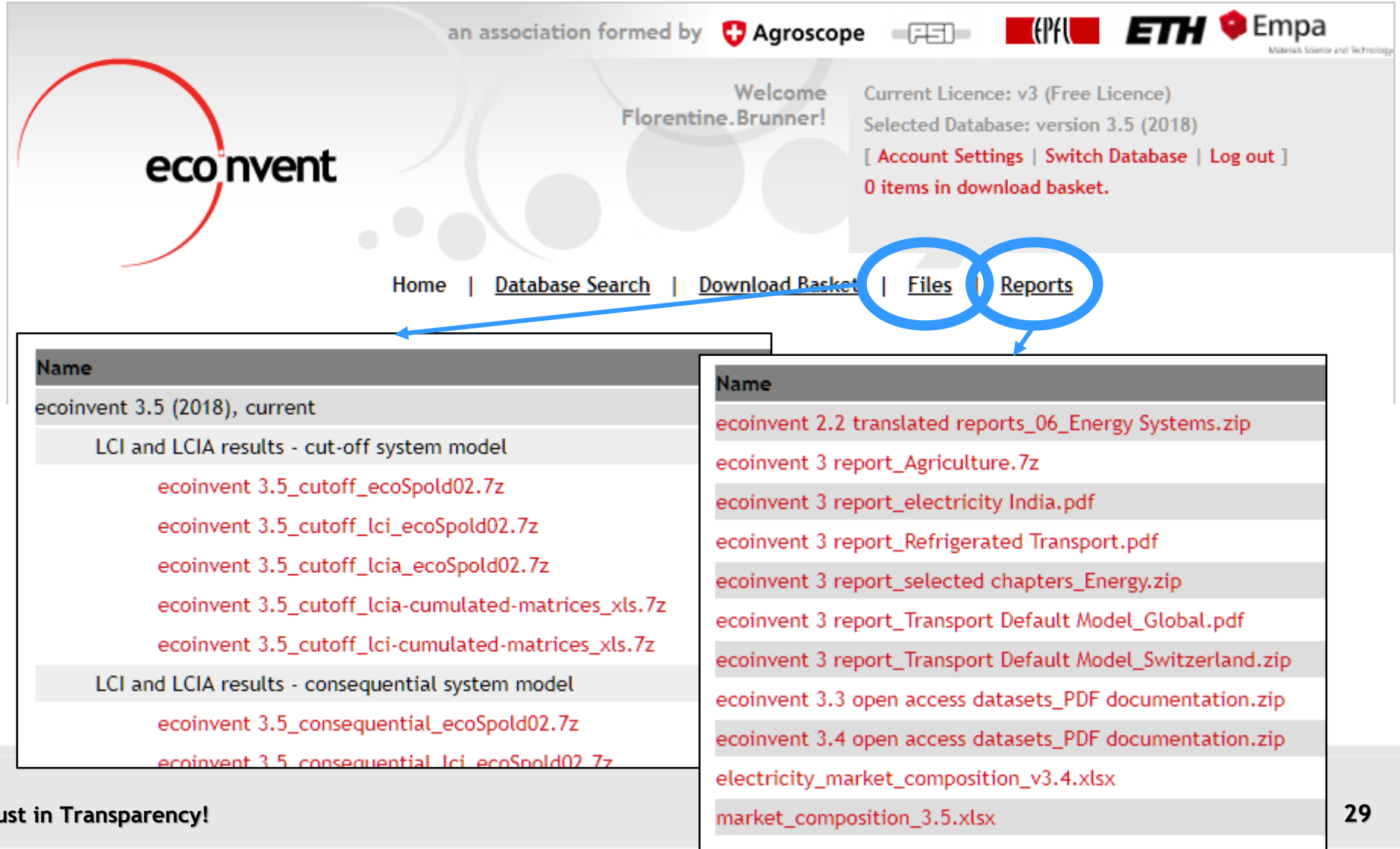
Comment: Reported as paper for recycling.
Production volume comment: Calculated from production volume of reference product using the relative outputs.
Uncertainty distribution: lognormal; **GSD2:** 1.04; **Pedigree matrix:** [1, 3, 1, 1, 1]
Uncertainty comment:
Source: FEFCO Corrugated Packaging 2015

Inputs from technosphere	Amount
acrylic varnish, without water, in 87.5% solution state	0.48 kg

Comment: FEFCO 2015.
Uncertainty distribution: lognormal; **GSD2:** 1.04; **Pedigree matrix:** [1, 3, 1, 1, 1]
Uncertainty comment:
Source: FEFCO Corrugated Packaging 2015

Trust in Transparency!

Download the reports and files of your interest



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Thank you for listening!

Florentine Brunner

Data Analyst

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www.ecoinvent.org

Agroscope EMPA EPFL ETH PSI